



Fact Sheet

US Army Engineer
Research and Development Center
Waterways Experiment Station

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Asphalt Mixture Design and Analysis

Purpose: Provide asphalt mixture design and analysis services for new and recycled pavements.

Background: The US Army Engineer Waterways Experiment Station (WES) has long been the nation's leading research agency for heavy-duty pavement design. For 55 years, our staff has provided expert consultation for new and rehabilitated pavement design as well as providing forensic analysis of pavement failures. Our organization is responsible for design of all military and many civilian airport pavements. We have over 50 years of experience with Marshall asphalt mixture design and several years experience with the recently developed SHRP (Strategic Highway Research Program) asphalt mixture design system.

Facts: The WES is fully equipped and staffed to perform Marshall and SHRP asphalt mixture design for roads and airfields. We can conduct 4-in. and 6-in. Marshall, SHRP, stone matrix asphalt, porous friction course, and resin-modified pavement (a composite of asphalt and concrete technology) design. In addition, we are equipped with many mixture analysis tools that include wheel tracking, repeated load confined deformation, resilient modulus, indirect tensile, Corps of Engineers Gyratory Testing Machine, asphalt content using the NCAT (National Center for Asphalt Technology) ignition furnace, and beam fatigue.



SHRP Gyratory Compactor

Point of Contact: For more information regarding asphalt mixture analysis/design and/or forensic investigations of pavement failures contact Dr. Kent Newman at (601) 634-3858 or e-mail at newmanj@wes.army.mil. For more information on the WES, visit our web site at <http://www.wes.army.mil> or <http://pavement.wes.army.mil>.